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Gunther Liebl

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EXAMINER

TORRES, JOSEPH D

ART UNIT

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2112

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,960	Applicant(s) LIEBL ET AL.	
	Examiner Joseph D. Torres	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-76 is/are pending in the application.
- 4a) Of the above claim(s) 37-55 and 75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-74, and 76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group II, Claims 56-74 and 76 in the reply filed on 07/29/2008 is acknowledged. The traversal is on the ground(s) that "The present application is directed to a coding scheme of digital data. As generally known in the art of coding, a digital encoder is used to digitally encrypt data whereas a decoder is used to decode the encoded data. thus, the functionality of a decoder is generally a reverse function". This is not found persuasive because nowhere does the Applicant claim any decoding or encoding operation in claims 37 and 56. The Applicant only claims abstract algorithms for storing abstract data elements while receiving and transmitting. Even if a receiver uses an abstract algorithms for storing abstract data elements while receiving, that in and of itself does not require or suggest the a corresponding transmitter use an equally abstract algorithms for storing abstract data and vice a versa. The Applicant also suggests both "Most importantly, the Examiner will have no problem in searching for prior art" and "Applicant further performed a quick search in the USPTO data base for patent issued by the USPTO in which the terms "encoding" and "decoding" were used in the claims. This search returned over 10,000 hits". The Examiner suggests that the Applicant search through said "over 10,000 hits" and to see if the Applicant still believes that there is not undue burden.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 37-55 and 75 drawn to an invention nonelected with traverse in the reply filed on 07/29/2008. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Response to Arguments

Applicant's arguments with respect to claims 56-74 and 76 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claims 57-59, 61-64, 67-68 and 72-74 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 57-59, 61-64, 67-68 and 72-74 fail to recite any limitation in the form of a step/action further limiting the method for decoding of claim 56.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 56-74 and 76 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap

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between the steps. See MPEP § 2172.01. Claim 56 recites, a “method for decoding” in the preamble yet the body of claim 56 fails to recite any step connecting the abstract algorithms for storing abstract data elements while receiving recited in the body of claim 56 to decoding.

Claim 76 recites, a “computer readable media storing software instructions to decode” in the preamble yet the body of claim 56 fails to recite any step connecting the abstract algorithms for storing abstract data elements while receiving recited in the body of claim 76 to decoding.

Claims 57-59, 61-64, 67-68 and 72-74 fail to recite any limitation in the form of a step/action further limiting the method for decoding of claim 56.

Claim 76 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 76 recites, a “computer readable media storing software instructions to decode” in the preamble. Signals, hardware storage devices and air space are examples of media. It is not clear whether the Applicant is claiming an apparatus or some other non-statutory category of invention. Note: there are only four statutory categories of invention: process, machine, manufacture, or composition of matter. The Examiner assumes the Applicant intended apparatus.

Claim 76 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. Claim 76 recites, a “computer readable media storing software instructions to decode” in the preamble, but fails to recite any limitation that that can be construed as an element of a computer readable media further limiting the computer readable media.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 76 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 76 recites, a “computer readable media storing software instructions to decode” in the preamble. Signals, hardware storage devices and air space are examples of media. It is not clear whether the Applicant is claiming an apparatus or some other non-statutory category of invention. Signals and Airspace is non-statutory.

Claims 56-74 and 76 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 56-74 and 76 are directed to an abstract algorithm for storing abstract data elements.

The courts have held that a claim may not preempt ideas, laws of nature or natural phenomena. The concern over preemption was expressed as early as 1852. See Le

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Roy v. Tatham, 55 U.S. 156, 175 (1852) (“A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right.”); Funk Brothers Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 132, 76 USPQ 280, 282 (1948) (combination of six species of bacteria held to be nonstatutory subject matter).

**>Accordingly, one may not patent every “substantial practical application” of an idea, law of nature or natural phenomena because such a patent would “in practical effect be a patent on the [idea, law of nature or natural phenomena] itself.” Gottschalk v. Benson, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

Simply put, claims that describe features in the Applicant’s specification at the Abstract level without any regard to function or utility are nonstatutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 56-74 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Schuster; Guido M. et al. (US 6175871 B1, hereafter referred to as Schuster) in view of AVD-2060 document (AVD-2060, Generic erasure protection with in-band signaling of protection profiles [enhanced APC-1992], March 5 - 9, 2001, pages 1-17) [hereafter referred to as AVD-2060] and Schulzrinne et al. (H. Schulzrinne, S. Casner, R. Frederick, V. Jacobson, RTP: A Transport Protocol for Real-Time Applications, January 1996, pages 1-75) [hereafter referred to as Schulzrinne]. Note: Schulzrinne is used strictly as a teaching reference for the RTP protocol.

Claims 56-, are rejected under 35 U.S.C. 103(a) as being unpatentable over the AVD-2060 document (AVD-2060, Generic erasure protection with in-band signaling of protection profiles [enhanced APC-1992], March 5 - 9, 2001, pages 1-17) [hereafter referred to as AVD-2060] in view of Schuster; Guido M. et al. (US 6175871 B1, hereafter referred to as Schuster) and Schulzrinne et al. (H. Schulzrinne, S. Casner, R. Frederick, V. Jacobson, RTP: A Transport Protocol for Real-Time Applications, January 1996, pages 1-75) [hereafter referred to as Schulzrinne]. Note: Schulzrinne is used strictly as a teaching reference for the RTP protocol.

Note that the AVD-2060 document and Schuster are analogous arts for RTP protocol packet units.

35 U.S.C. 103(a) rejection of claims 56 and 76.

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Schuster teaches receiving a first data packet at a first time (col. 9, lines 28-46 in Schuster teaches receiving 1st, 2nd, 3rd and 4th packets in Figure 4 at different times); receiving a second data packet at a second time, the second time being subsequent to the first time (col. 9, lines 28-46 in Schuster teaches receiving 1st, 2nd, 3rd and 4th packets in Figure 4 at different times); receiving a third data packet at a third time, the third time being subsequent to the second time (col. 9, lines 28-46 in Schuster teaches receiving 1st, 2nd, 3rd and 4th packets in Figure 4 at different times); receiving a fourth data packet at a fourth time, the fourth time being one of subsequent to the third time and prior to the first time (col. 9, lines 28-46 in Schuster teaches receiving 1st, 2nd, 3rd and 4th packets in Figure 4 at different times); storing the first data packet, the first data packet including a first sequential number and **a first block identifier** (col. 9, lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in correct sequential order regardless of the order in which the packets arrived; Note: Figure 4 in Schuster teaches that the first sequential number n is a block identifier); storing the second data packet, the second data packet including a second sequential number (col. 9, lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in correct sequential order regardless of the order in which the packets arrived); storing the third data packet, the third data packet including a third sequential number (col. 9, lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in correct sequential order regardless of the order in which the packets arrived); and storing the fourth data packet, the fourth data packet including a fourth sequential number and (col. 9, lines 28-46 in Schuster teaches stroing 1st, 2nd, 3rd and 4th packets in Figure 4 in

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correct sequential order regardless of the order in which the packets arrived), wherein a data block corresponds to a portion of the sequence of digital data, the data block including the first data packet, the second data packet, the third data packet, and the fourth data packet (the Abstract and Figure 4 in Schuster teaches a data block/frame corresponds to a portion of the sequence of digital data, the data block including the first data packet, the second data packet, the third data packet, and the fourth data packet). However Schuster does not explicitly teach the specific use of the second data packet, the second data packet including **a block width**; the third data packet, the third data packet including **a second block identifier**; and the fourth data packet, the fourth data packet including **the block width**.

AVD-2060 clearly suggests receiving a first data packet at a first time; receiving a second data packet at a second time, the second time being subsequent to the first time; receiving a third data packet at a third time, the third time being subsequent to the second time; receiving a fourth data packet at a fourth time, the fourth time being one of subsequent to the third time and prior to the first time (AVD-2060 is a communication protocol which clearly suggests a receiver for receiving transmitted packets).

In addition, AVD-2060 explicitly teaches a first data packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the first data packet including a first sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **a first block identifier** (Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block identifier); a second data packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the second

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data packet including a second sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **a block width** (block length n in Section 6.2 on page 12 of AVD-2060); a third data packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the third data packet including a third sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **a second block identifier** (Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block identifier); and a fourth data packet (Figures 2 and 4 in AVD-2060 teaches 1st, 2nd, 3rd and 4th packets), the fourth data packet including a fourth sequential number (Section 6 on page 12 of AVD-2060 clearly suggests that each RTP packet has an RTP sequence number) and **the block width** (block length n in Section 6.2 on page 12 of AVD-2060), wherein a data block corresponds to a portion of the sequence of digital data, the data block including the first data packet, the second data packet, the third data packet, and the fourth data packet (Section 5 in AVD-2060 teaches that a data transmission block TB corresponds to a portion of the message sequence of digital data, the data transmission block TB including the first data packet, the second data packet, the third data packet, and the fourth data packet).

However AVD-2060 does not explicitly teach the specific use of **storing** the first data packet; **storing** the second data packet; **storing** the third data packet; and **storing** the fourth data packet.

Note: AVD-2060 provides the missing data structure elements in Schuster: **block identifiers** and **block width** packet fields. Schuster provides the missing data structure

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elements in AVD-2060: a buffer in the receiver for storing RTP packets. AVD-2060 provides motivation for combining: flexible erasure resilient transmission (Abstract in AVD-2060). Schuster provides motivation for combining: structuring data to enable information gathering for an adaptive system such as the UXP adaptive system in AVD-2060 (col. 2, lines 37-43 in Schuster).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Schuster with the teachings of AVD-2060 by including the missing elements in the respective Prior Arts. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that including the missing elements in the respective Prior Arts would have provided flexible erasure resilient transmission (Abstract in AVD-2060) and information gathering for an adaptive system such as the UXP adaptive system in AVD-2060 (col. 2, lines 37-43 in Schuster).

35 U.S.C. 103(a) rejection of claims 57-59, 61-64, 67-68 and 72-74.

Claims 57-59, 61-64, 67-68 and 72-74 fail to recite any limitation in the form of a step/action further limiting the method for decoding of claim 56, hence are rejected for the same reasons as claim 56.

35 U.S.C. 103(a) rejection of claim 57.

Note: section 5.1 of Schulzrinne teaches that a sequence number in the RTP header is a number that **progressively** increments by 1 in the order that the RTP packets are

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transmitted. The sequence number is a clear indication of the position of the RTP packet in the transmission block.

35 U.S.C. 103(a) rejection of claim 58.

Section 4.1 on page 7 in AVD-2060.

35 U.S.C. 103(a) rejection of claim 59.

Section 3 on page 6 in AVD-2060.

35 U.S.C. 103(a) rejection of claim 60.

Note: section 5.1 of Schulzrinne teaches that a sequence number in the RTP header is a number that **progressively** increments by 1 in the order that the RTP packets are transmitted. The sequence number is a clear indication of the position of the RTP packet in the transmission block.

Section 4.1 on page 7 in AVD-2060 teaches that synchronization is achieved at the frame and group level, which clearly indicates once synchronization is achieved, the only mechanism for detection start and end of a block is the sequence number/packet identifier.

35 U.S.C. 103(a) rejection of claim 61.

Section 6.1 on page 12 of AVD-2060 teaches that the time stamp TS is a block identifier and that every RTP packet has a time stamp TS block identifier.

35 U.S.C. 103(a) rejection of claim 62.

Block length n in Section 6.2 on page 12 of AVD-2060 is included in each RTP packet.

35 U.S.C. 103(a) rejection of claim 63.

Figures 2 and 4 in AVD-2060.

35 U.S.C. 103(a) rejection of claim 64.

1.28 on page 4 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 65.

Section 6.1 in page 12 of AVD-2060 teaches the use of a time stamp TS to distinguish a sequence of Transmission Blocks since the TS is the same for each RTP packet in a particular transmission block in a sequence of Transmission Blocks.

35 U.S.C. 103(a) rejection of claim 66.

Section 6.1 in page 12 of AVD-2060 teaches the use of a time stamp TS to distinguish a sequence of Transmission Blocks since the TS is the same for each RTP packet in a particular transmission block in a sequence of Transmission Blocks. Section 6.1 in page 12 of AVD-2060 teaches the use of a time stamp TS eliminates the confusion in repeating RTP sequence numbers since the RTP sequence number along with the Time Stamp determines the transmission block data.

35 U.S.C. 103(a) rejection of claim 67.

Section 6.1 in page 12 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 68.

Figure 4 in Schuster teaches that the first sequential number n is a block identifier.

35 U.S.C. 103(a) rejection of claim 69.

Figure 4 in Schuster teaches that the first sequential number n is a block identifier.

35 U.S.C. 103(a) rejection of claim 70.

Section 5 in page 8 and Section 1.17 on page 3 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 71.

Section 5 in page 8 and Section 1.17 on page 3 of AVD-2060.

35 U.S.C. 103(a) rejection of claim 72.

Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block identifier for each RTP packet.

35 U.S.C. 103(a) rejection of claim 73.

Figure 4 in Schuster teaches that the first sequential number n is a block identifier.

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n+2 in the 3rd packet is substantially a second block identifier.

35 U.S.C. 103(a) rejection of claim 74.

Section 6.1 on page 12 of AVD-2060 teaches that the time stamps TS is a block identifier for each RTP packet different from the first sequential number.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph D. Torres
Primary Examiner
Art Unit 2112

/Joseph D. Torres/
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